Abstract

A method for producing 3-hydroxypropionaldehyde from glycerin in high conversion ratio is provided. The method is characterized by comprising a step of dehydrating glycerin using a microbial cell and/or a treated microbial cell containing diol dehydratase and/or glycerol dehydratase, and optionally diol dehydratase reactivating factor and/or glycerol dehydratase reactivating factor, under conditions so as to give a value (X/Y^2) calculated by dividing a catalytic amount [X (U/g glycerin)] of diol dehydratase and/or glycerol dehydratase by square of glycerin concentration [Y (g/100 ml)] within a range of 10 to 8,000, to produce 3-hydroxypropionaldehyde.